

JOIDES SITE SURVEY PANEL MEETING

February 9 - 11, 1999

University of Western Australia, Fremantle, Australia

Members: Diebold, John (*LDEO, NY, USA*) -- Chair
Anselmetti, Flavio (*ESF*)
Christeson, Gail (*UTA, USA*)
Driscoll, Neal (*WHOI, USA*)
Enachescu, Michael (*Husky, Canada*)
Holbrook, Steve (*UWYOM, USA*)
Kleinrock, Martin (*VU., USA*)
Kuramoto, Shin'Ichi (*GSJ, Japan*)
Lyle, Mitchell (*BSU., USA*)
Srivastava, Shiri (*GSCA, Canada*)
Whitmarsh, Robert (*SOC, UK*)
Yao, Bochu (*GMGS, China*)

Liaison: Allan, James (*NSF, USA*)
Warner Brueckmann (*JOIDES Office*)
Klaus, Adam (*ODP/TAMU*)
Tamaki, Kensaku (*SCICOM/OPCOM*)
Quoidbach, Daniel (*ODP Data Bank*)

Apologies: Ball, Mahlon (*PPSP*)
Flood, Roger (*SUNY, USA*)
Hine, Albert (*USF, USA*)
Meyer, Heinrich (*BGR, Germany*)
Sibuet, Jean-Claude (*France*)
Silver, Eli (*UCSC, USA*)

AGENDA

*JOIDES Site Survey Panel Meeting
February 9-11, 1999
University Western Australia, Fremantle Australia*

1. PRELIMINARY MATTERS (Diebold)

- 1.1 Introduction of members, liaison, guests and meeting logistics.
- 1.2 Charge and procedures for the meeting, Working of SSP
- 1.3 Watchdog assignments and feedback to proponents
- 1.4 Action items from July 1998 LDEO meeting

2. REPORTS

- 2.1 Seismogenic zone PPG (Sh'inichi)
- 2.2 SCICOM/OPCOM(Tamaki)
- 2.3 JOIDES (Brueckmann)
- 2.4 PPSP (Quoidbach)
- 2.5 ODPDB (Quoidbach)
- 2.6 TAMU (Klaus)
- 2.7 NSF (Allan)
- 2.8 PANCH (Srivastava)
- 2.9 ISSEP (Whitmarsh) and ESSEP (Diebold)
- 2.10 Site Survey Requirements for Deep Drilling (Enachescu)

3. SITE SURVEY IMPLICATIONS OF RECENTLY DRILLED LEGS

- 3.1 Leg 181: (Klaus)
- 3.2 Leg 182: (Klaus/Enachescu)

4. SITE SURVEY STATUS OF UPCOMING SCHEDULED LEGS FOR 99 & 00 *

- 4.1 Leg 188: Prydz Bay Glacial History, 490 (Srivastava)
- 4.2 Leg 189: Southern Gateway, 485 (Driscoll)
- 4.3 Leg 190: Nankai, 445 (Srivastava)
- 4.4 Leg 191: WP-ION, 431B WP2 (Christeson)
- 4.5 Leg 192: Manus Basin, 479 (Diebold)
- 4.6 Leg 193: Ontong Java, 448 (Whitmarsh)

5. POTENTIAL FUTURE DRILLING: SSEP (Earth Int.)

5.1 450: Taiwan arc-continent collision (Holbrook) PPSP

5.2 451: Tonga Forearc (Kleinrock)

5.3 499: ION Equatorial (Christeson)

5.4 500: H₂O Observatory (Christeson)

6. POTENTIAL FUTURE DRILLING: SSEP (Earth Env.)

6.1 455: Laurentide Ice Sheets (Anselmetti)

6.2 465: SE Pacific Paleoceanography (Lyle)

6.3 482: Wilkes Land Margin: Cenozoic Glacial History (Driscoll)

6.4 486: Paleogene Equatorial Pacific APC transect (Yao)

6.5 489: Ross Sea, Antarctica: Paleoceanography (Driscoll)

6.6 503: Weddell Sea: Glacial history (Anselmetti)

6.7 510: Marion Plateau, NE Australia: Sea Level variations, (Whitmarsh)

6.8 521: Indus Fan Monsoon History (Kuramoto)

6.9 534: Paleoceanographic depth transect Shatsky Rise (Lyle)

7. OTHER BUSINESS (Diebold)

7.1 Panel Membership

7.2 Liaison to SSEPs

7.3 SSP requirements for gas hydrates

7.4 Future SSP meetings

7.4 Other business

Executive Summary

4. Site Survey Status of upcoming scheduled legs for 99 – 00

4.1 Leg 188: Prydz Bay Glacial History (490; O'Brien)

Target types: B (Passive margin)

SSP Consensus #1 : A number of seismic lines and track maps were supplied by the proponents in response to our on going request. However, a number of items needs to be supplied to the DB before the adequacy of the entire data package can be evaluated by the panel systematically. These include, digital navigation files that are not present on the Antostrat CD, annotated seismic lines showing the drill sites and target depths, and a table with all required information of the sites together with an explanation for the site designation.

4.2 Leg 189: The „Southern Gateway“ Between Australia and Antarctica (485-rev2)

Target types:

SSP Consensus # 2: The data package for drilling of leg 189: Southern Gateway (485-rev2) will be greatly improved if digital navigation for seismic lines, including shotpoints, is provided to the Data Bank for all sites.

4.3 Leg 190, Deformation & fluid flow in the Nankai trough prism (445-rev2: Moore)

Target Type: C (Active margin)

SSP Consensus # 3: Nankai trough prism: Deformation and fluid flow (445-rev2) was rated 1A at the last SSP meeting. One ambiguity regarding the actual position of one proposed site has been resolved. The proposal is now a scheduled leg and is ready for drilling, from SSPs point of view.

65784.4 **Leg 191: WP-ION, 431B WP2(Suyehiro)** *Target Types:* E (Open Ocean Crust with sediments <400 m)

SSP Consensus #4: This proposal seeks to drill one site into basement in the western Pacific in order to install broadband ocean seismometers. All required data has been submitted to the data bank for this site with the exception of a survey ship track with annotated shot points. It is suggested that site WP2 be moved 100 CDP values to the left where basement is better imaged.

4.5 leg 192: Manus Basin (479, Binns)

Target Type: F (Bare rock drilling)

SSP Consensus #5 : All required data, excepting heat flow data, in support of proposal 479 (PACMANUS Basin) is in the data bank. Site survey readiness remains 1A. TAMU evaluation of videos of proposed site PCM-3A is required to decide whether placement of an acoustic beacon or reflector will be necessary in advance of drilling.

4.6 Leg 193: Assessing the origins, age and post-emplacement history of the Ontong Java Plateau through basement drilling (448-Rev4, Mahoney)

Target Types: D (Open Ocean Crust with sediments > 400 m) and E (Open Ocean Crust with Sediments < 400m)

Site Survey readiness classification : 2A

SSP Consensus # 6: The proponents should present a written and well reasoned justification of their basement picks, assumed interval velocities and computed depths to basement in order that the drilling operations of Leg 193 can be planned and carried out in the optimum and most efficient fashion. All relevant data available from earlier drilling legs should be used. All seismic reflection profiles that can be used to tie the proposed sites to such sites (in particular KH98-1) should be provided to the Data Bank. Any resulting revisions of basement pick times and computed depths should be accompanied by revised drilling time estimates from ODP engineers. The status of this proposal remains 2A.

5. Potential future drilling (SSEP - Earth's Interior)

5.1 Taiwan arc-continent collision (450, Lundberg) PPSP

Target Type: C: Active Margin and D: Open Ocean [site 6]

Site Survey Readiness Classification: 1A

SSP Consensus #7 : All vital data in support of drilling proposal 450 have been deposited in the DB with the exception of true amplitude displays of seismic profiles at two of the sites where a BSR is apparent. The proposal is rated 1A by SSP, but would still require PPSP review should it be scheduled as a drilling leg.

5.2 Arc Evolution and Mantle Geodynamics in Space and Time at an Intraoceanic Subduction Zone: Ocean Drilling in the Tonga Forearc (451-Full5)

Target Type: C (Active Margins)

Site Survey Readiness Classification: 1A

SSP Consensus #8: All required data for the Tonga Forearc proposal (451) reside in the Data Bank. This proposal, from an SSP perspective, is ready to be considered for drilling.

5.3 ION Equatorial (499; Orcutt)

Target Type: E (Open ocean crust with sediments <400m)

Site Survey Readiness Classification: 1A

SSP Consensus #9: Proposal 499, ION Equatorial, will drill a hole in the equatorial western Pacific as part of the ION program. A seismometer will be installed in the borehole, thus filling in a major gap in coverage between Central America and the Pacific Islands which exists with the current seismic network. All required data has been submitted to the ODP Data Bank, and SSP rates the site survey readiness status of this proposal as 1A.

5.4 H2O Observatory (500; Stephen)Target Type: E

Site survey readiness status: 2A
SSP Consensus #10: Proposal 500 is for drilling a reentry hole within 1 km of the junction box at the Hawaii-2 Observatory (H2O) site in the Eastern Pacific. Now that the junction box has been installed, the proponents need to choose a primary and alternate site and submit to the data bank SCS data over these sites. The site survey readiness status of this proposal is ranked as 2A.

6. Potential future drilling: ESSEP

Proposal 455: High Resolution Transects of Laurentide Ice Sheets Outlets (LISO-455-rev)

Target Type A (Paleoenvironment) and B (only Site HUD04A) (Passive Margin)

SSP Rating: 2A

SSP Consensus #11: New data has been sent to the Data Bank that completes the data package for some of the proposed sites. The site survey readiness of the proposal remains 2A. (Substantial items of required data are not in the Data Bank, but are believed to exist and are likely to be available in time for consideration for FY 2001 drilling schedule). The proponents should make efforts in depositing the required data with the DB before the July

1 deadline, if they wish their proposal to be further evaluated for site survey readiness at the SSP July 1999 meeting.

6.2 465: SE Pacific Paleoceanography

Target type: A (Paleoenvironment)

SSP Rating: 1A

SSP Consensus #12: The data set for proposal 465 are now complete for sites as proposed. If new site survey data becomes available and is used to move sites, however, that data needs to be sent to the databank to be included in the data package.

482 Wilkes Land Margin: Cenozoic Glacial History (482; Escutia)

Target Type: - Passive Margin

SSP rating: 3B

SSP Consensus # 13: The proposal is now ranked 3B because the proposed site survey cruise was cancelled and scheduling a new cruise is still underway. However, further review of existing data might result in some new shelf sites.

6.4 486: Paleogene Equatorial Pacific APC transect (M. Lyle, T. Moore, and D. Rea)

Target type: A

Site Survey Readiness Classification: 1ASSP Consensus # 14: All required data for proposal 486, with the possible exception of some magnetics data, are present in the data bank, and the proposal is ready for drilling from a site survey viewpoint.

6.5 489 Ross Sea, Antarctica: Paleoceanography (489; Davey) *Target Type:* B (Passive Margin) **SSP rating: 2A**

SSP Consensus # 15: The proposal ranking remains 2A and the proponents need to address the inconsistencies in the data set. Furthermore, alternate sites should be identified to allow flexibility as operational conditions change.

6.6 Weddell Sea: Cenozoic History of the East Antarctic Ice Shield and the Evolution of the Restricted Mesozoic Weddell Basin (503)

Target Types: B (passive Margin) and D (Deep Ocean)

SSP Rating: 2A

SSP Consensus #15: Newly acquired seismic lines and track maps have been submitted to the Data Bank. Several of the required items are still missing. Its site survey readiness remains 2A (Substantial items of required data are not in the data bank but are believed to exist and are likely to be available in time for consideration for FY 2001 drilling schedule). SSP encourages the proponents to submit the missing site survey data by the next deadline of July 1, if they wish their proposal to be further evaluated for site survey readiness at SSP meeting in July 1999.

6.7 Proposal Sea-level magnitudes and variations recorded by continental margin sequences on the Marion Plateau, NE Australia (510-Full3: Isern)

Target Type: B (Passive Margin)

SSP rating: 3A.

SSP Consensus #16: The panel requests that the R.V. Franklin Cruise Planning document be submitted to the ODP Data Bank and seeks clarification of the apparent discrepancy

between the two integrated travel-time plots in this document. The Panel strongly urges the proponents to collect velocity data in the vicinity of their proposed sites, using sonobuoys or other means, that will assist computation of the depths of drilling targets. The Panel requires that new multichannel seismic data, and certain other data (track chart, grids of seismic lines, 3.5 kHz, and core descriptions), to be obtained during the April 1999 cruise, be submitted to the ODP Databank before their July 1999 meeting. The Panel continues to grade the readiness for drilling of this proposal as 3A.

6.8 521: Indus Fan Monsoon History (521)

SSP rating: 2A.

SSP Consensus # 17: The essential CDP data for the single primary site and an alternate site have been supplied to the DB but many other items are still required. These include Exact site locations with respect to the seismic profiles, velocity data, heat flow and/or hydrocarbon potential information from nearby industry wells, and stratigraphic interpretation of the CDP data. It is recommended that the IF-1 site be moved slightly to obtain a more complete section.

6.9 Paleogene/Cretaceous Paleocyanographic depth transect Shatsky Rise (534)*Target type: D*

SSP Rating: 1B

SSP Consensus #18: Sites have been located upon MCS lines across Shatsky Rise. These are adequate to locate sites with respect to deep objectives, but sites need to be optimized for Paleogene objectives based upon 3.5 kHz data. The 3.5 kHz data do exist and the proponents are encouraged to get this data to the site survey databank as soon as possible.

Minutes

2.4 PPSP Report Quoidbach

PPSP met in Rio de Janeiro November 12-13. Brian Taylor gave a report on hydrocarbons encountered on Leg 180. The panel felt that with appropriate cautions the ship could return to the area to drill in the future. Jack Baldauf indicated that TAMU was inviting several PPSP members to give a workshop on safety issues for the Operations Superintendents. This has since taken place.

Jack Baldauf presented several alternate sites for cruises that had already gone through PPSP review. For Leg 184 (South China Sea), sites SCS-5D and 5E were approved. For Leg 186 (Japan Trench) sites JT-3 and JT-4 were approved.

The panel reviewed sites for Legs 187 (Australia Antarctic Discordance), 188 (Prydz Bay), 189 (Southern Gateway), and 190 (Nankai). They also previewed Leg 192 (Manus Basin) sites.

- _ Leg 187 sites were approved with no changes.
- _ Leg 188 sites were approved with a small shift in position of PBF-4A and PBD-12B to move off of anticlinal structures.
- _ Leg 189 sites were approved with a small shift in position of site WSTR-1A to avoid a fault.
- _ Leg 190 sites were approved with no changes.
- _ Leg 192 sites were seen as not presenting a safety problem, so they were given approval with no changes.

The PPSP requests that SSP continue to flag proposal that require PPSP previews. They also request that SSP continue to stress the importance that profiles be properly labeled with horizontal and vertical scales, site positions with lines drawn down to the target depth, and positions of crossing lines.

2.5 Data Bank Report - Quoidbach

Since the last SSP meeting, 261 data items have been submitted to the Data Bank. Data Bank Manager Quoidbach attended a meeting on ODP web site development held at JOI on September 30. A „umbrella“ web site is being developed with will provide a single point of entry to ODP information, and provide a consistent look and feel down to the first one or two levels of the subcontractor web sites.

The Web development meeting was followed by the Co-Chief review on October 1-2. It was noted that Co-chiefs are sometimes taken by surprise by the requirements of the PPSP review of scheduled drilling legs. The Data Bank will work with the JOIDES Office to ensure that the information regarding safety requirements is passed on during the transition from proponents to Co-chiefs.

Quoidbach attended the PPSP meeting in Rio de Janeiro November 12-13. The next PPSP meeting will be held April 15-16 in San Antonio.

The Data Bank is developing a portable Intranet for use at SSP meetings. This will consist of a portable computer with a FileMaker Pro database and a Web front end running on an AppleShareIP server hosted on a PowerBook. This will be connected to an Ethernet hub, allowing anyone with an RJ-45 Ethernet connector to join an ad hoc network. This will allow the minutes of the meetings to be collected on the server, data descriptions to be made directly into online forms, and this data can be linked into the Data Bank web site following the meeting.

Quoidbach requested that the panel consider a recommendation for a full time Systems Manager at the Data Bank to manage the various computer projects, thus freeing up the Manager to work with the data packages.

The SSP supports the creation of an additional person at the DB, perhaps a computer systems manager

3.0 site survey implications of recently drilled legs (Klaus)

Leg 180 was unable to attain primary objective at site 1108 due to indications of the presence of hydrocarbons. Another potential SSP concern was their difficulty in penetrating surficial talus at sites 1110-1113. Casing would be required there. Some discussion ensued; talus rubble could be detected by deep tow sidescan sonar, but not if it were buried in sediment.

Co-chief/PPSP review decided that site 1108 can be deepened to previously approved depth pending additional mapping of the fault with additional seismic data. A safety meeting will be held at ODP-TAMU with Katz & Claypool to develop leg strategy for safety issues. Carbon isotope analysis is ongoing to assess potential source areas.

The panel wondered whether the observed fault reflectivity was the result of variations in fault content (fluids?) or scattering from talus. They also suggested that geochemists look for hydrocarbons in fault gouge cored on Moresey Seamount.

Leg 181 SW Pacific gateways

Weather restricted ability to attain target depths at several sites. Also, the desired section was missing in hole 1121, indicating a failure in seismic stratigraphic interpretations. A discussion ensued as to whether the data were sufficient to predict this, or whether it is the role of SSP to interpret the data. Probably not. Another, lesser surprise arose at site 1125, where the target was expected to be Oligocene-Eocene, but turned out to be Plio-Miocene.

Leg 182 coolwater carbonate deposition Great Australian Bight.

The high quality, well prepared „model“ data set for this leg failed to predict the presence of high concentrations of chloride and H₂S. -Breathing apparatus required on the rig floor and in labs. A H₂S Safety workshop was held at TAMU.

4.0 Site Survey Status of upcoming scheduled legs for 99 - 00

4.1 Leg 188: Prydz Bay Glacial History (490; O'Brien)

SSP Watchdog: Srivastava (for Flood)

SSP Proponents: None

Target types: B (Passive margin)

We were pleased to see that the remaining items from this proposal finally arrived at the ODP Data Bank in response to our on going request to the proponents. These items include navigation maps, copies of interpreted seismic data and the results from some of the piston cores collected in the vicinity of the proposed sites. The panel would like to thank the proponents for supplying the required information. However, on closer examination of the material supplied a number of concerns emerged and these are listed below.

1. Navigation maps: The lettering is too small to be legible. It is therefore suggested that either these maps be reprinted at larger lettering size or a better solution would be to supply the digital information to the DB so that the required information can be printed by them at appropriate scales.

2. Site information: This includes site position, drilling targets depth, the seismic line(s) on which the site is located and a brief objective which the site addresses. This information should be supplied in a tabular form for easy comprehension not only by the panel but also by others concerned with operational aspect of this proposal, similar to that usually prepared by Joides Office for each proposal. Since the proposal has evolved over the last three years with numerous changes in site location and their designations, the existing information in the present version of the proposal is obsolete and cannot be used, a feeling also communicated to the proponents after our July 98 meeting. Site designations are most confusing. It is not clear which site is alternate to which site. No doubt this information has been supplied for some of the sites in the forms but not for all sites. For example this information is incomplete for sites PBS3A and PBS4A. It will be useful if the proponents would list how they have designated their sites.

3. Seismic lines: Not many seismic lines are marked with drilling targets. No doubt the proponents have shown on some of the seismic lines their seismostratigraphic interpretation but not their drilling target. Many of the sites are located on single lines with no justification why they could not be located on cross lines where these exist.

The panel appreciates proponents response to some of our concerns which arose at our July meeting. Because of the lack of the above information the panel was not able to review the new data in a logical fashion. It is important that the proponents supply the required information in the form as suggested before our July meeting so that it can review the adequacy of the new data before drilling can commence on this Leg.

SSP Consensus #1 : A number of seismic lines and track maps were supplied by the proponents in response to our on going request. However, a number of items needs to be supplied to the DB before the adequacy of the entire data package can be evaluated by the

panel systematically. These include, digital navigation files that are not present on the Antostrat CD, annotated seismic lines showing the drill sites and target depths, and a table with all required information of the sites together with an explanation for the site designation.

4.2 Leg 189: The „Southern Gateway“ Between Australia and Antarctica (485-rev2)

Proponents: Exon, N.F., Kennett, J.P., Howard, P.J., Sikes, J-Y. Shafik, S., and Chaproniere, G.C. H.

SSP Watchdog: N.W. Driscoll (for A.C. Hine)

SSP Proponents: None

Target types:

This proposal was rated 1A at the July, 1998 SSP meeting, and has subsequently been scheduled as a leg. One site has been moved to accommodate PPSP concerns, but still lies within an adequately surveyed area. One problematic area remaining in the data package is that it is difficult to correlate time-of-day and shotpoints between the maps provided and the digital navigation.

SSP Concensus # 2: The data package for drilling of leg 189: Southern Gateway (485-rev2) will be greatly improved if digital navigation for seismic lines, including shotpoints, is provided to the Data Bank for all sites.

4.3 Leg 190, Deformation & fluid flow in the Nankai trough prism (445-rev2: Moore)

SSP Watchdog: Srivastava

SSP Proponent: None

Target Type: C (Active margin)

It was discovered at our July 98 meeting that the positional information for site WNT-01A as given in ODP drilling prospectus for 2000-2001 did not match with the position plotted on seismic line NT62-2. One of the co-chiefs was informed about this discrepancy. The situation has now been rectified. The position as plotted on the seismic line is the correct one. The Leg is now ready for drilling.

SSP Concensus # 3: Nankai trough prism: Deformation and fluid flow (445-rev2) was rated 1A at the last SSP meeting. One ambiguity regarding the actual position of one proposed site has been resolved. The proposal is now a scheduled leg and is ready for drilling, from SSPs point of view.

6578**4.4 Leg 191: WP-ION, 431B WP2(Suyehiro)** *SSP Watchdog:* Christeson
*SSP Proponents:*None *Target Types:* E (Open Ocean Crust with sediments <400 m)

This leg will drill one sites into basement in the western Pacific in order to install a broadband ocean seismometers as part of the Ocean Seismic Network. Site WP2 has caused concern because of reverberations in the profile, and questions about basement identification and sediment thickness. It is suggested that this site be moved about 100 CDP points to the left where basement is better imaged. Site 581, which was drilled on Leg 86, encountered 75 m of chert above basement. The panel again examined this profile and decided that the reverberations in the data were probably due to chert, but that a basement reflector could be identified. However, it is suggested that the site be moved as suggested and a survey ship track with shot points annotated needs to be submitted to the data bank.

SSP Consensus #4: This proposal seeks to drill onsite into basement in the western Pacific in order to install broadband ocean seismometers. All required data has been submitted to the data bank for this site with the exception of a survey ship track with annotated shot points. It is suggested that site WP2 be moved 100 CDP values to the left where basement is better imaged.

4.5 leg 192: Manus Basin (479, Binns)

SSP Watchdog: Diebold (for Silver)

SSP Proponents: none

Target Type: F (Bare rock drilling)

Proposal 479 was rated 1A at the July, 1998 SSPmeeting. It was agreed that heat flow data, though lacking and desirable, was virtually impossible to obtain. Acoustic beacons were placed at all the proposed sites but one: PCM-3A. We have learned since the meeting that a copy of video coverage of proposed site PCM-3A has been supplied to TAMU, and is currently under evaluation by ODP staff scientist Jay Miller and drilling ops manager. .

SSP Consensus #5 : All required data, excepting heat flow data, in support of proposal 479 (PACMANUS Basin) is in the data bank. Site survey readiness remains 1A. TAMU evaluation of videos of proposed site PCM-3A is required to decide whether placement of an acoustic beacon or reflector will be necessary in advance of drilling.

4.6 Leg 193: Assessing the origins, age and post-emplacement history of the Ontong Java Plateau through basement drilling (448-Rev4, Mahoney)

SSP Watchdog: Whitmarsh

SSP Proponents: none

Target Types: D (Open Ocean Crust with sediments > 400 m) and E (Open Ocean Crust with Sediments < 400m)

At its February 1999 meeting SSP reviewed the status of ODP proposal #448-Rev4 (also known as #448-Full). The review was provided 1) following the processing and submission of new data collected during Leg 2 of a cruise of the RV Hakuho Maru in February 1998 and 2) in response to the SSP's July 1998 recommendations.

In accordance with the above recommendations the proponents had submitted a revised table of sites (dated 14 December 1998), omitting Site OJ-9, that, based on the drilling time

estimates from ODP, represented a complete 56-day drilling leg. In the updated table four main sites are listed as OJ-3B (alternate OJ-3C), OJ-11C, OJ-7D (alternate OJ-7E) and OJ-6B (alternate OJ-6C). All the proposed holes aim to penetrate 200 m into basement. Two sites (OJ-3, OJ-7) have sediments 975-1305 m thick and the proponents expect them to be re-entry sites. All sites are D targets except for Site OJ-11C which is an E target.

The new data submitted to the ODP Data Bank consist of FK-migrated multichannel seismic reflection profiles across the sites, extensive 3.5 kHz profiles, the seismic structure derived from 2 sonobuoys adjacent to Sites OJ-3 and OJ-11, a revised annotated regional track chart and a version overlain on satellite gravity. The Panel inspected the seismic profiles and found them to be entirely suitable for scientific interpretation. The Panel was disappointed to receive only the sonobuoy structures without the corresponding record sections and reflection picks on which the models were based which would have increased confidence in the velocity models.

The Panel carefully assessed the basement picks and computed depths in the new table because these will have an important impact on actual drilling times and the viability of the proposed drilling program. The Panel noted the generalised seismic velocity structure presented in Fig. 2 of Gladchenko et al. (1997), which indicates the presence of relatively high velocity chert/limestone layers in the region and suggests that basement is characterised by velocities of more than 4 km/s, and the fact that volcanic basement was encountered at Site 289 well below the top of the rough regional reflective layer that everywhere underlies more or less uniformly layered sediments. **The Panel concluded that the proponents should provide a written reasoned explanation of a) the rationale for picking the times to volcanic basement and b) how the depths to basement were computed, including the sources of velocities used and any assumptions made where such velocities were not available from the vicinity of the site.**

The Panel's comments on individual sites are as follows,

Sites OJ-3B, OJ-3C: The Panel was not convinced that the correct two-way time to the volcanic basement had been picked. A DSDP seismic profile across the adjacent Site 289 showed that the top of volcanic basement was cored at 0.32 s twt below the top of the rough reverberant layer picked as volcanic basement by the proponents. It seemed that a deeper pick of basement at Site OJ-3B around 3.5 s twt (corresponding to a 3.2/4.8 km/s boundary in the sonobuoy model) would fit better with the structure from sonobuoy 31. The Panel concluded that Sites OJ-3B and OJ-3C should be linked to Site 289/586, via the KH98-1 track indicated on the track chart, and horizons encountered at Site 289 should be correlated via the KH profiles to Sites OJ-3B and OJ-3C. Permission to wash to 500/400 mbsf at Sites 3B/3C will have to be obtained from SCICOM.

Site OJ-6B, OJ-6C: The Panel still could not understand why Site OJ-6B was given as the main site in preference to the alternate OJ-6C since the former is in deeper water and therefore will take longer to drill. Since this site is apparently isolated and cannot be tied by seismic lines to other drill sites or sonobuoy stations in the area it is difficult to confirm the basement picks. The proponents should reconsider these picks in the light of the other comments made here on this subject.

Sites OJ-7D, OJ-7E: The Panel could not understand why Site OJ-7D was given as the main site in preference to the alternate OJ-7E since the former is in deeper water and therefore

will take longer to drill. Whereas the basement picks at this site appear to be inconsistent with the other picks made by the proponents in the area, in that basement has been picked to coincide with a strong smooth reflection ca. 0.45 s twt below the top of the rough regional reverberant reflection, in view of the above comments about Site 289 this may indeed be a correct pick but needs to be substantiated.

Site OJ-11C: The pick made by the proponents does not reasonably match the seismic structure of sonobuoy 17. The pick coincides with a 1.7/2.4 km/s boundary in the sonobuoy structure, whereas this structure suggests the pick should be around 5.8 s twt coincident with a 4.8/5.7 km/s boundary. It appears that the proponents also used a seabed to basement interval velocity of 2.0 km/s to compute basement depth whereas the sonobuoy model indicates an interval velocity of ca. 1.65 km/s over the same interval.

Site Survey readiness classification Remains 2A, pending the submission of well supported and reasoned picks and computed depths to basement at every site.

SSP Consensus # 6: The proponents should present a written and well reasoned justification of their basement picks, assumed interval velocities and computed depths to basement in order that the drilling operations of Leg 193 can be planned and carried out in the optimum and most efficient fashion. All relevant data available from earlier drilling legs should be used. All seismic reflection profiles that can be used to tie the proposed sites to such sites (in particular KH98-1) should be provided to the Data Bank. Any resulting revisions of basement pick times and computed depths should be accompanied by revised drilling time estimates from ODP engineers.

5. Potential future drilling (SSEP - Earth's Interior)

5.1 Taiwan arc-continent collision (450, Lundberg) PPSP

SSP Watchdog: Holbrook

SSP Proponents: none

Target Type: C: Active Margin and D: Open Ocean [site 6]

450 was rated 1A at the July, 1998 SSP meeting, and has since been classified as inactive by ODP. The project is of interest to NSF, who have funded several site surveys, but it has been lowly rated by the SSEPS and SCICOM. From an SSP viewpoint, nothing has changed, and the proposal's readiness stands as 1A. Due to the BSR event at two sites, PPSP review would be required should the proposal become a leg. True amplitude seismic sections would be required by PPSP in that event.

SSP Concensus #7 : All vital data in support of drilling proposal 450 have been deposited in the DB with the exception of true amplitude displays of seismic profiles at two of the sites where a BSR is apparent. The proposal is rated 1A by SSP, but would still require PPSP review should it be scheduled as a drilling leg.

5.2 Arc Evolution and Mantle Geodynamics in Space and Time at an Intraoceanic Subduction Zone: Ocean Drilling in the Tonga Forearc (451-Full5)

SSP Watchdogs: Martin Kleinrock (replacing John Diebold)

SSP Proponent: none

Target Type: C (Active Margins)

This proposal was rated 1A, ready for drilling, at the July 1997 SSP meeting at Lamont. The proposal was revised, favoring its geochemical goals over the previous version's tectonic ones, based on external reviews and SCICOM comments. At the Feb 1998 SSP meeting in Berlin, the proposal was still rated 1A, though inconsistencies were noted in water and sediment depths between site summary forms and in the site summary table. These apparently typographical inconsistencies, and one in latitude, have been rectified, and the proposal remained rated 1A at July 1998 SSP meeting at Lamont. Proponent responses to external reviewers/SCICOM comments on the 1997 revision (451-Full5) were received in good order. It was noted that there are some industry drill holes nearby on the island of Tongatapu. If OPCOM schedules this as a Leg, then SSP feels that the proponents should investigate these data and be prepared to supply them to PPSP for their consideration regarding hydrocarbon presence and hazards. The proponents affirmed that they have in hand the relevant industry data. We continue to rate this 1A.

SSP Consensus #8: All required data for the Tonga Forearc proposal (451) reside in the Data Bank. This proposal, from an SSP perspective, is ready to be considered for drilling.

Site Survey Readiness Classification: 1A

6578

tx7165x15678**5.3 ION Equatorial (499; Orcutt)**

15678*SSP Watchdog:* Christeson

SSP Proponents: None

Target Type: E (Open ocean crust with sediments <400m)

This proposal, which targets objectives of the ION and OSN programs, proposes that a cased, cemented hole be drilled and fitted with a re-entry cone in the equatorial western Pacific. The site will fill in a major gap in coverage between Central America and the Pacific Islands which exists with the current seismic network. The proposed site is near ODP site 852 which was drilled on Leg 138. All necessary data is currently in the data bank, and SSP classifies this proposal as 1A in terms of site survey readiness.

SSP Consensus #9: Proposal 499, ION Equatorial, will drill a hole in the equatorial western Pacific as part of the ION program. A seismometer will be installed in the borehole, thus filling in a major gap in coverage between Central America and the Pacific Islands which exists with the current seismic network. All required data has been submitted to the ODP Data Bank, and SSP rates the site survey readiness status of this proposal as 1A.

5.4 H2O Observatory (500; Stephen)*SSP Watchdog:* Christeson*SSP Proponents:* None*Target Type:* E

This proposal is for drilling a reentry hole at the Hawaii-2 Observatory (H2O) site in the Eastern Pacific. A seafloor observatory is currently planned at the H2O site. In the Fall of 1998 a cruise successfully installed a junction box on the cable at this site. This proposal is for drilling a hole within 1 km of a junction box on the Hawaii-2 cable; a broadband seismometer will be installed within the hole as part of the worldwide ION program. Now that the junction box has been installed, the proponents need to choose a primary and alternate site and submit to the data bank SCS data over these sites. The site survey readiness status of this proposal is ranked as 2A.

Site survey readiness status: 2A

SSP Consensus #10: Proposal 500 is for drilling a reentry hole within 1 km of the junction box at the Hawaii-2 Observatory (H2O) site in the Eastern Pacific. Now that the junction box has been installed, the proponents need to choose a primary and alternate site and submit to the data bank SCS data over these sites. The site survey readiness status of this proposal is ranked as 2A.

6. Potential future drilling: ESSEP

Proposal 455: High Resolution Transects of Laurentide Ice Sheets Outlets (LISO-455-rev)

SSP watchdog: Anselmetti

SSP Proponents: None

Target Type: A (Paleoenvironment) and B (only Site HUD04A) (Passive Margin)

New Data for the sites HUD01-HUD06 have been submitted to the Data Bank since the July 1998 meeting. As requested by the SSP, the newly submitted lines are horizontally and vertically annotated and the sites are marked on the sections. Sites HUD01-HUD06 are now well covered with single-channel seismic data and 3.5 kHz profiles. Detailed and regional maps and new summary sheets also were submitted for these sites.

Serious concern was issued by the panel that the proposed penetration of 800 m at Site HUD04A (target type B) exceeds the seismically imaged depth of the newly submitted SCS data. The panel thus recommends submission of the complete seismic record beyond the so far plotted two-way travel time of 2.8 seconds. The used 40 cu inch sleeve gun should be sufficient to image the target horizons. Alternatively, additional deeper imaging multichannel lines may be used to seismically justify that the drilling objectives can be met at this site.

The Data Bank would appreciate receiving digital navigation files and possibly a regional overview map showing sites and relevant sections. In case that digital files will be submitted, all needed maps can be plotted by the Data Bank itself. It also is necessary to annotate target horizons and penetration depths at the drill sites on the seismic sections, using best available velocity data. 3.5 kHz data should be looked at carefully in order to verify the absence of coarse debris at potential drilling sites.

No new data has been submitted for sites HUD07-HUD08 and all LAW sites. The panel therefore repeats the recommendations for these sites made during the previous meetings and encourages the proponents to submit digital navigation files, seismic sections with annotations of scale and sites as well as navigation maps. In the case that new data has been acquired, the

proponents are also encouraged to submit this information before the deadline of the next meeting.

The panel is aware that the proponents are currently reconsidering penetration depth and location of Site LAW01A. The panel reiterates thus the recommendations made in the previous minutes regarding seismic control and scientific justification of the proposed target depths.

Since only part of the required data was submitted, the Site Survey Readiness Classification remains 2A. (Substantial items of required data are not in the data bank but are believed to exist and are likely to be available in time for consideration for FY 2001 drilling schedule).

SSP Consensus #11: New data has been sent to the Data Bank that completes the data package for some of the proposed sites. The site survey readiness of the proposal remains 2A. (Substantial items of required data are not in the Data Bank, but are believed to exist and are likely to be available in time for consideration for FY 2001 drilling schedule). The proponents should make efforts in depositing the required data with the DB before the July 1 deadline, if they wish their proposal to be further evaluated for site survey readiness at the SSP July 1999 meeting.

6.2 465: SE Pacific Paleooceanography

SSP Watchdog: Lyle

SSP Proponents: None

Target type: A (Paleoenvironment)

I inadvertently missed the digital submission of the Genesis III data package which contains the playbacks of the SCS data at the July 1998 SSP meeting. All data needed for drilling are now at the data bank.

It was noted at this meeting that there is a proposal for new site surveys of the northern drillsites in this proposal (the CAR sites and COC-1). We remind the proponents that if sites are moved because of new survey data, the new data must be sent to the site survey data bank.

Site survey readiness status: 1A

SSP Consensus #12: The data set for proposal 465 are now complete for sites as proposed. If new site survey data becomes available and is used to move sites, however, that data needs to be sent to the databank to be included in the data package.

482 Wilkes Land Margin: Cenozoic Glacial History (482; Escutia)

SSP Watchdog - Driscoll

SSP Proponents - none

Target Types - Passive Margin

The proponents recognize the need for collecting high-resolution seismic profiles that intersect the existing data for the proposed shelf sites. The proposed OGS cruise for Austral Summer 1999 was cancelled and the proponents are trying to reschedule a site survey in '99 or '00 to acquire the necessary crossing lines for the shelf sites. The data for the two rise sites are in the data base.

The site forms for the alternate sites (WLSHE04A-WLSHE09A) need to be completed and submitted to the SSDB. In addition to the site forms, seismic data for alternate sites WLSHE07A, WLSHE08A, and WLSHE09A need to be submitted to the data bank. The link between the new JNOC seismic data submitted to the data bank and the proposed sites is not clear, given the proposed sites are not on the seismic lines. Even though drilling through the shelf diamictite will be difficult, the proponents might want to consider moving proposed site WLSHE-01A to shot point 275 in order to sample the oldest material overlapping onto the unconformity.

SSP rating: 3B

SSP Consensus # 13: The proposal is now ranked 3B because the proposed site survey cruise was cancelled and scheduling a new cruise is still underway. However, further review of existing data might result in some new shelf sites.

6.4 486: Paleogene Equatorial Pacific APC transect (M. Lyle, T. Moore, and D. Rea)

SSP Watchdog: Yao Bochu (for A. C. Hine)

SSP proponent: Lyle

Target type: A

A single leg of 11 primary APC sites is proposed to study the paleo Pacific equatorial ocean circulation at 56 Ma--the early Eocene, a period of global warmth and no polar ice sheet development. The proponents wish to „accurately define the flux of biogenic sediments within the narrow equatorial zone of high productivity--the signature feature of tropical atmosphere and oceanic circulation...“. This is a pure paleoceanography proposal and the targets are classified as „A“. None of the 11 primary sites and none of the 9 alternate sites pose problems

Proposal 486 was rated 1A at the July, 1998 SSP meeting. Since then, the sites have not been changed, and therefore it is still 1A. The SSP suggested that for completeness, the proponents submit the remaining „loose ends“ (more detailed core descriptions, copies of fully processed swath bathymetry, processed 3.5 kHz data, and magnetics data). Since then, all these items, excepting magnetics, have been submitted to the DB.

SSP Consensus # 14: All required data for proposal 486, with the possible exception of some magnetics data, are present in the data bank, and the proposal is ready for drilling from a site survey viewpoint. SSP Ranking: 1A

6.5 489 Ross Sea, Antarctica: Paleocyanography (489; Davey)*SSP Watchdog:* Driscoll *SSP Proponents:* none *Target Type:* B (Passive Margin)

No new data has been received since the last SSP meeting in July, 1998. There are still inconsistencies in the data set that need to be addressed (e.g., labeling sites, marking crossing tracks, and horizontal scales near sites) and the proponents are encouraged to visit the Data Base and remedy these problems. All the data appear to be in the data base in some form.

Velocity data for the deep site (RSSHE-08B) need to be provided so that target depths can be evaluated

SSP rating: 2A

SSP Consensus # 15: The proposal ranking remains 2A and the proponents need to address the inconsistencies in the data set. Furthermore, alternate sites should be identified to allow flexibility as operational conditions change.

6.6 Weddell Sea: Cenozoic History of the East Antarctic Ice Shield and the Evolution of the Restricted Mesozoic Weddell Basin (503)

SSP watchdog: Anselmetti

SSP Proponents: None

Target Types: B (passive Margin) and D (Deep Ocean)

New multichannel seismic lines have been submitted to the Data Bank covering alternate sites WS07A, WS08A and WS08B. The panel also acknowledges receipt of high quality track maps with annotations of all proposed sites. SSP encourages the proponents to submit in addition the existing high-resolution Parasound data for sites WS05-WS08B as well as digital navigation files for all sites. The panel also recommends that penetration depth down to the target horizons is marked on the seismic sections with indication of the kind of velocity data that was used for depth-to-time conversion. Horizontal scales should be added on all seismic sections.

The panel acknowledges that the proponents moved the newly proposed alternate sites far away from their primary sites, since proximity of primary and alternate sites might cause drilling problems during difficult ice conditions.

As mentioned in the correspondence of the proponents, Site WS04A and its alternate WS03A, lie very close to each other. Even if they are positioned in an area that has statistically a minimal risk of ice problems, the panel recommends the selection of additional alternate sites to the West or the East that fulfill the scientific objectives, so that maximum flexibility during a drilling campaign can be provided. Selection of alternate sites should be possible using the extensive existing seismic dataset. In addition, panel members issued some concern on using site WS03A as an alternate site for primary site WS04. The seismic correlation between the two sites along line AWI-92020 is rather discontinuous due to several unconformities, indicating that the two sites potentially cover different stratigraphic records. This might not be compatible with the scientific objectives.

Despite the newly submitted good-quality data, several items are still missing in the Data Bank. The site survey readiness classification of this proposal remains 2A. (Substantial items of required data are not in the databank but are believed to exist and are likely to be available in time for consideration for FY 2001 drilling schedule)

SSP Rating: 2A

SSP Consensus #15: Newly acquired seismic lines and track maps have been submitted to the Data Bank. Several of the required items are still missing. Its site survey readiness remains 2A (Substantial items of required data are not in the data bank but are believed to exist and are likely to be available in time for consideration for FY 2001 drilling schedule). SSP encourages the proponents to submit the missing site survey data by the next deadline

of July 1, if they wish their proposal to be further evaluated for site survey readiness at SSP meeting in July 1999.

6.7 Proposal Sea-level magnitudes and variations recorded by continental margin sequences on the Marion Plateau, NE Australia (510-Full3: Isern)

SSP Watchdog: Whitmarsh

SSP Proponents: none

Target Types: B (Passive Margin)

At its February 1999 meeting SSP reviewed ODP proposal #510-Full3. The sites were designated as B targets (Passive Margin). The only data that had been submitted to the ODP Databank since the last meeting were 2 time migrated multichannel seismic reflection profiles across the proposed sites. In addition the Panel reviewed the plans for a site survey cruise on the R.V. Franklin scheduled to take place from 9th April - 5th May 1999.

The Panel was pleased to see that the site survey cruise would collect both regional and site specific multichannel reflection profiles. They noted the absence of velocity information from the vicinity of the sites, and the absence of plans to collect such data; they therefore strongly urged the proponents to acquire such data during their cruise. The sonic log data supplied from Leg 133 sites on the Marion Plateau were inconsistent at shallow depths possibly because of a labelling problem. The new seismic multichannel profiles should preferably be migrated before the 1 July 1999 submission to the Databank but in view of the tight time constraints stacked data will be acceptable initially.

The Panel also noted the proponents response to their (the Panel's) concerns about the possibility of encountering hydrocarbons in the proposed holes and accepted that the likelihood of this happening was small.

To have any chance of being scheduled in FY2001 (and possibly FY2002) a complete set of all the above data must be sent to the Databank before the July 1999 SSP meeting (nominal 1 July 1999 deadline).

SSP rating: 3A.

SSP Consensus #16: The panel requests that the R.V. Franklin Cruise Planning document be submitted to the ODP Data Bank and seeks clarification of the apparent discrepancy between the two integrated travel-time plots in this document. The Panel strongly urges the proponents to collect velocity data in the vicinity of their proposed sites, using sonobuoys or other means, that will assist computation of the depths of drilling targets. The Panel requires that new multichannel seismic data, and certain other data (track chart, grids of seismic lines, 3.5 kHz, and core descriptions), to be obtained during the April 1999 cruise, be submitted to the ODP Databank before their July 1999 meeting. The Panel continues to grade the readiness for drilling of this proposal as 3A.

6.8 521: Indus Fan Monsoon History (521) PPSP

SSP Watchdog: Kuramoto *SSP Proponents:* none

Target Type: B (passive margin)

A single 2700 meter hole is proposed, in 3000m of water. The primary site is located on crossing BGR lines. The alternate site located on IFP lines. These data have been supplied by the proponents and deposited in the DB. The seismic profiles are very helpful in that they show the exact stratigraphy of proposed sites. Substantial items of required data are not in the DB but are believed to exist. We present a list of requests for the proponents:.

- 1) Please show the exact CDP numbers of the proposed sites on each seismic profile.
- 2) Please send us colour interpreted profiles (DB has only B/W profiles. It is very hard to see and understand)
- 3) We recommend to move the IF-1 site to the southwestward by 20 CDPs (approx. 250 m). Original proposed site may miss a thin layer.
- 4) Please re-think the drilling strategy. Do the drilling time estimates include the placing of casing?
- 5) Please show the detailed stratigraphy of the „Indus Marine A-1“ site. It could be helpful to understand the stratigraphy of the Indus Fan.
- 6) Heat flow data around the proposed site may be needed to estimate the hydrocarbon potential.
- 7) Please send available sonobuoy data. The velocities are required to estimate drilling times.

SSP rating: 2A.

SSP Consensus # 17: The essential CDP data for the single primary site and an alternate site have been supplied to the DB but many other items are still required. These include Exact site locations with respect to the seismic profiles, velocity data, heat flow and/or hydrocarbon potential information from nearby industry wells, and stratigraphic interpretation of the CDP data. It is recommended that the IF-1 site be moved slightly to obtain a more complete section.

6.9 Paleogene/Cretaceous Paleocyanographic depth transect Shatsky Rise (534)

SSP Watchdog: Lyle

SSP Proponents: None

Target type: D

This proposal was first examined at the July 1998 SSP meeting. At that meeting we were able to look at the MCS data originally surveyed for proposal 463 and decided that these data are more than adequate for the deep objectives in this proposal. Better resolution of the upper section is necessary for the Paleogene objectives, however. This could be achieved if 3.5 kHz data were available from the site survey cruise. In a letter dated January 8, 1999 the proponent has stated that the 3.5 kHz data do exist and that he will visit Will Sager and Adam Klaus at TAMU to copy the appropriate sections to send to the databank. We look forward to seeing the data, and remind the proponents that the next deadline for data submission is July 1.

The proponents should also be aware that the deep objectives on some sites may require re-entry, especially since chert may wear out drillbits. Time estimates for drilling should be made based upon re-entry for sites SHAT-2 and 3.

SSP Rating: 1B

SSP Consensus #18: Sites have been located upon MCS lines across Shatsky Rise. These are adequate to locate sites with respect to deep objectives, but sites need to be optimized for Paleogene objectives based upon 3.5 kHz data. The 3.5 kHz data do exist and the proponents are encouraged to get this data to the site survey databank as soon as possible.

Other business

David Fearey - Leg 182 revisited.

H₂S only seen in the shallowest wells. There is nothing in the seismic data to correlate with this, but there could be a source issue. The environment is characterized by lack of terrigenous material, high deposition rates, high salinity. Also had high values of methane, ethane and propane. The worst hole (1127) had highest chloride concentration gradient. ***PPSP*** should watch out for possible H₂S when drilling carbonate targets on continental shelves.

7.1 Panel Membership.

Flood and Christenson are due to expire (Flood this meeting, Gail next) Nominate replacements.

We have a new member in Yao. Replace Gail –Possibilities are Suzanne Carbotte, Maya Tolstoy, Kirk McIntosh, Anne Meltzer, Sue McGear, Tim Munschull, Mathilde Cannat.

7.2 Liaison to SSEP meetings in Seattle, May 1999

ISSEP: Gail Christenson, Marty Kleinrock, alternate.
ESSEP: Mitch Lyle, Neal Driscoll, alternate

7.4 future SSP meetings

July 19-21 Lamont, with access to the DB on 18th (Sunday)

Zurich 23-25 Feb 2000

Shiri Srivastava

The panel applauded and thanked Shiri for his long service as a member and chairman of the SSP.

Discussion: Site Survey considerations for gas hydrates

3D and 4C absolutely required (Enachescu) Deep tow High Resolution seismics recommended (Shin'ichi)

Venting vs. closed systems. Heatflow required? arguments both ways.
Velocity a must, but how to get it? Amplitude modeling, AVO. Broadband desirable.

Subdivide requirements according to tectonic environment. what's the source below the BSR, what pathways?

Liaison to PPG Shin'ichi. Would they like him to attend meeting?? Mike Enachescu volunteers to present need for 3D/4C to the PPG

SSP issues

Mike Enachescu noted a decrease in the quality of data packages sent to the data bank lately, and recommends to SCICOM that they notify proponents of proper standards. This led to a discussion about the need for a handbook on site survey methods, including examples of properly presented data. We hope that Dan Quoidbach can get something ready for the soon-to-be issued revised guidebook.

what are adequate velocity measurements? And how should they be presented - traveltime vs depth is good.

Appendix – DB manager's proposal for new hire

The Data Bank Manager is responsible for all of the administrative tasks associated with running the Data Bank, as well as the management of the packages of data arriving for proposals in the JOIDES System. Computers have become vital tools in both of these areas. Development and maintenance of computer and data processing systems have fallen to the Data Bank manager and have grown to consume about 40% of the Manager's time on average, with this rising closer to 80% during times of large data submissions. The time pressure is causing data packages to be developed in more of a reactive mode than in a proactive fashion.

The current computer tasks include:

1. General maintenance and backup of desktop and server Macs and PCs.
2. Generation of charts and maps using GMT tools.
3. Maintenance of the database of CDP and SP navigation (not included in the LDEO MGG databases.) Includes massaging of data files received from proponents.
4. Maintenance and improvement of the database of submitted survey data for ODP proposals.
5. Development of the Data Bank web pages and the tie with the database of survey data.
6. Development of GIS tools for mapping and data management.

New projects that are planned and which will require a systems manager to accomplish:

1. Development and maintenance of a portable Intranet to be set up at SSP meetings. This will allow SSP watchdogs to add notebook computers to an ad hoc network for reviewing proposals and entry of meeting minutes directly into a database. This will allow reports and summaries to be generated for the SSP Chair and will replace the current system of shuttling

floppy disks. After the meeting this database would be linked in to the Data Bank web site, allowing watchdogs to view the information between meetings.

2. Creation „digital watchdog books“ on the ODP Web Site. This will include the database from the SSP meetings, searchable email archives of proposal correspondence, PDF versions of proposals, and a tie to the database of data holdings. Eventually online navigation plots would be added.
3. Development of GIS coverage and tools to work with the GIS system being developed by the Columbia Earth Institute.
4. Begin digitizing paper navigation maps to allow online storage of these data. Explore scanning of paper records to reduce long term storage of paper records.

The newer tasks being undertaken are long term projects and are not best addressed by a short-term hire. While consultants or short-term hires could build some of these systems, the training into the JOIDES procedures and the Data Bank tasks would be lost at the end of the employment period.

Additionally, there is a need for redundancy in personnel. Currently only the Data Bank Manager fully understands the Data Bank computer systems and data structures and in his absence development stops. Also, there is no one to fill in for the Data Bank Manager at SSP and PPSP meetings in the event that he cannot attend. The Systems Manager would provide coverage in both of these areas.

Finally, it is expected that the Data Bank's Data Archivist will be retiring in the next two years. Hiring a permanent Systems Manager now will allow for a crossover period allowing some corporate memory to be passed along.